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ABSTRACT

The National Follow Through Program is a federally funded initiative to improve the quality of educational services for students from economically disadvantaged backgrounds. This report discusses the implementation and outcomes of the program. In the first part of the paper, a history of the program is provided and the diversity of educational approaches in Follow Through's model programs, the gairs in basic skills demonstrated by Follow Through students, and the dissemination of Follow Through's model programs are discussed. The second part considers three components of the Follow Through program. These are: (1) a holistic approach to instruction; (2) the development and use of research-based instructional programs and practicus; and (3) effective educational delivery systems that stress sponsorship of local projects, staff development, and implementation of parent involvement activities. The third part, a conclusion, finds that the Follow Through program is clearly an important source of knowledge waiting to be tapped, and that its most important message may be that there is a critical need to forge a two-directional exchange, indicating the need for a link between research and schooling practice. Follow through has also identified ways of dealing with the evaluation of school improvement efforts, and corroborated findings in the literature on effective teaching and school effectiveness. A reference list of 62 items is included. An appendix lists overall goals and major design features of some widely implemented Follow Through model programs. (BC)



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THE NATIONAL FOLLOW THROUGH PROGRAM: LESSONS FROM TWO DECADES OF RESEARCH AND PRACTICE IN SCHOOL IMPROVEMENT

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THE NATIONAL FOLLOW THROUGH PROGRAM: LESSONS FROM TWO DECADES OF RESEARCH AND PRACTICE IN SCHOOL IMPROVEMENT

The National Follow Through Program was introduced in 1967 as a federally funded initiative to improve the quality of educational and related services for students from economically disadvantaged backgrounds. Since its inception, Follow Through has provided both a testing ground for the development of educational innovations and a conduit for the mationwide dissemination of demonstrably effective programs in the early childhood grades (kindergarten through grade 3). Follow Through has been a pacesetter in terms of the breadth of educational viewpoints it has embraced, the richness of the knowledge base it has generated, and the far reach of its influence on schooling practice throughout the United States.

Although Follow Through was established to meet the needs of low-income students and their families, the research findings and the practical experience accrued have implications beyond the ken of compensatory education for disadvantaged students. Follow Through has an important message to deliver about how to introduce and maintain innovative educational approaches. Amid the current climate of school reform, this message has considerable meaning for researchers, education practitioners, policymakers, and parents who are concurned with the improvement of schooling for <u>all</u> children.

The Follow Through message, as discussed in this paper, is based on findings from a recent project that compiled and analyzed 20 years' worth of information on the implementation and outcomes of the National Follow Through Program. In the first



section of this paper, historical background on the national program is provided, including a summary of its overall impact. Then, three major contributing components of Follow Through's success are described as part of a replicable model for introducing and maintaining school improvement efforts. In the concluding section of this paper, some of the major lessons learned from Follow Through in the areas of educational research and schooling practice are highlighted for their particular relevance to the current school reform movement.

History of Follow Through: A Track Record of Success

In the mid-1960s, federal policy and programs in education began to reflect a deepened commitment to identifying preschool and early elementary interventions that could interrupt the cycle of low achievement among poor children and prevent continued poverty in their adulthood (e.g., Zigler, 1981). Both the Head Start program and the National Follow Through Program were manifestations of this commitment. Follow Through was aimed specifically at eliminating the "drop off" in school learning that was found to occur for Head Start children when they entered kindergarten and first grade.

The design of the National Follow Through Program evolved into a unique hybrid of service and research efforts (Brickman & Ramp, 1987). As an experimental, "planned variation" program, Follow Through was intended to support the systematic development, implementation, and evaluation of a variety of approaches to educating economically disadvantaged children. Program developers from academic and other



research institutions were identified to work with local school sites in the operation and refinement of these approaches and, thereby, to help bridge the gap between research and the improvement of schooling practice.

The Follow Through-sponsored educational approaches came to be known as "model programs"; the program developers were designated as "sponsors"; and each sponsor was joined with a certain number of "local projects," that is, school or district sites for program implementation. In 1970, the number of Follow Through model program sponsors peaked at 22; the number of local projects was 178. By 1987, policy shifts and funding cutbacks at the federal and local levels had resulted in a reduction to 12 model program sponsors and 63 local projects.

The comprehensiveness of Follow Through's mission and design is reflected in the diversity of educational approaches that have been represented by the various model programs through the years, as well as in the multifaceted educational and related services that have been provided at local project sites. All of the Follow Through model programs have utilized educational approaches that are grounded in theory, research, and pedagogy. These approaches have included adaptive instruction; highly structured, group-paced instruction; cognitive-developmental approaches; and emphasis on social-emotional growth. A review of different Follow Through model programs reveals a broad spectrum of instructional-learning objectives and design features; the Appendix of this paper provides a list of widely implemented model programs, the overall goal of each program, and its major design features.



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Follow Through's comprehensiveness is also evidenced by its requirement that each local project must provide four categories of coordinated educational and related services: instruction, staff development, parent involvement, and comprehensive services such as medical, nutritional, and psychological services. Although the designs of individual model programs may have emphasized certain services more than others (e.g., model programs designed specifically to develop parents' instructional capabilities), program implementation at local school/district sites has, in all cases, involved some integration of strategies and practices in the four designated areas.

Follow Through's track record of success over the past two decades has been widely documented (e.g., Hodges et al., 1980; Rhine, 1981; Stallings, 1975). Several of the major indicators of the national program's success are discussed briefly here. They are the program's effects on student learning, its dissemination impact, and its role as an "idea bank."

Effects on Student Learning

Probably the indicator of most interest in the various efforts to document the impact of Follow Through has been student learning outcomes. In terms of both immediate and long-term achievement in basic skills, Follow Through students have repeatedly demonstrated gains that match, and often exceed, national and population-specific norms. For example, a study conducted by the United States Department of Education through an outside contractor found impressive gains in language arts, math,



and reading achievement for 9 of the 10 model programs that were studied (Ramp, 1986). Not all Follow Though studies, of course, attain impressive results. More research is needed to discover what conditions lead to greater success, although several are noted in subsequent sections of this paper.

The number of Follow Through local projects that have been validated by the Joint Dissemination Review Panel (JDRP) of the U.S. Department of Education is another indicator of positive student learning outcomes. During the years 1977, 1980, and 1981, 48 Follow Through local projects, representing a total of 13 different Follow Through model programs, were validated by the JDRP as exemplary educational programs (Wang & Walberg, 1987a). One of the primary criteria used by the JDRP in its validation process was evidence of increased academic achievement. Findings from a recent analysis of statistical effect sizes for the 48 validated Follow Through local projects suggest that the projects with the greatest gains in achievement were also those with high degrees of implementation of their particular model programs, an emphasis on basic skills instruction and learning, and locations in urban areas (Wang & Walberg, 1987a). Compared to other federally sponsored educational programs, moreover, Follow Through has the highest proportion of JDRP-validated local projects (Ramp, 1986).

In addition to the immediate effects on student achievement that have been found for Follow Through, several long-term effects have been documented for individual model programs. Longitudinal studies of program effects have been conducted by the sponsors of five widely implemented model programs and the evaluation staff of one



large urban school district in which several different Follow Through model programs were implemented (Becker & Gersten, 1982; Cloud, Rentfrow, & Hildebrandt, 1979; Cloud, Rentfrow, Hildebrandt, Abrams, & DeCausey, 1980; Gersten, Carnine, & Keating, 1984; Maraschiello, 1979; McNamara, 1978; Seitz, Apfel, & Efron, 1978; Szegda, 1986; Williams, 1983). Olmsted and Szegda (1987) recently analyzed the results from these longitudinal studies. They found that students who had participated in a Follow Through model program tended to experience less grade retention, lower dropout rates, and fewer special education placements in their later school years compared to siblings and other comparison groups who had not had opportunities for early intervention under Follow Through.

Apart from such impact on school success, there is also evidence (although it is less quantifiable) of a wide variety of long-term institutional and personal effects. For example, the approaches and practices used by schools for teacher training, staff supervision, and student evaluation have all undergone substantial changes at many Follow Through local project sites (Olmsted & Szegda, 1987). Great numbers of paraprofessionals from Follow Through classrooms have been encouraged and supported in their pursuit of career training, and parents of Follow Through students have experienced personal development as well as increased involvement in their communities and local schools. As measured by such long-term effects, Follow Through has left a lasting imprint on schools, families, and communities across the nation.



Dissemination Impact

In the late 1970s, 21 of the local projects that had been validated by the JDRP were funded by the National Follow Through Program to carry out autionwide dissemination of their particular model programs. These projects were known as Follow Through resource centers. By 1983, the efforts of the resource centers, combined with the dissemination activities of Follow Through sponsors and the diffusion of model programs throughout the districts of Follow Through local projects, were affecting the education of more than two million children (SCAN Executive Committee, 1983). In addition to the 69 Follow Through local projects that were funded in 1983, 714 communities (410,000 children) across the nation were using the approaches and practices of different Follow Through model programs. Through districtwide, citywide, and even statewide adoptions of its model programs, Follow Through has had a permanent impact on primary education in the United States (Brickman & Ramp, 1987).

Responses to a recent survey of non-Follow Through schools/districts that have adopted components of Follow Through model programs over the years suggest a generally high level of satisfaction (Wang, 1987). A variety of communities — urban, suburban, small town, and rural — were represented by the survey respondents, and the student populations of these communities were quite diverse. Twenty-two percent of the respondents were from schools that had been implementing Follow Through model programs (or specific components/practices of the programs) for more than 16 years. Results from the 1987 survey by Wang indicate that Follow Through model programs



were perceived by the responding administrators and other school and district staff to be highly effective in terms of important indicators such as student outcomes (e.g., time on task, independence and management skills, student-teacher interactions, academic achievement); teacher satisfaction and enthusiasm (both rated at more than 85% by survey respondents); and parent satisfaction (rated at more than 90%).

Follow Through as an "Idea Bank"

The impact of Follow Through also lies in its value as a unique, national resource that offers a wealth of proven methods and materials as well as cadres of trained personnel who have become experts in working with local schools to solve educational problems. The "human capital" of the National Follow Through Program is extensive. It includes highly experienced groups of sponsor staff members, local administrators, teachers, and parents, all of whom are well-versed in the educational technologies of the past 20 years, yet also thoroughly knowledgeable about the many practical realities that come into play when introducing new ideas to communities, schools, and families.

The Follow Through Model for School Improvement

The Follow Through experience over the past two decades provides a model for the effective introduction and maintenance of innovative school improvement programs and practices. As shown in Figure 1, the three contributing components of the model are (a) a holistic approach to instruction and education-related services, (b) the development



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and use of research-based instructional programs and practices, and (c) effective delivery systems. The three components are interrelated. If effectively implemented, they can result in improved educational and related services which, in turn, produce positive student learning and other outcomes.

Insert Figure 1 about here

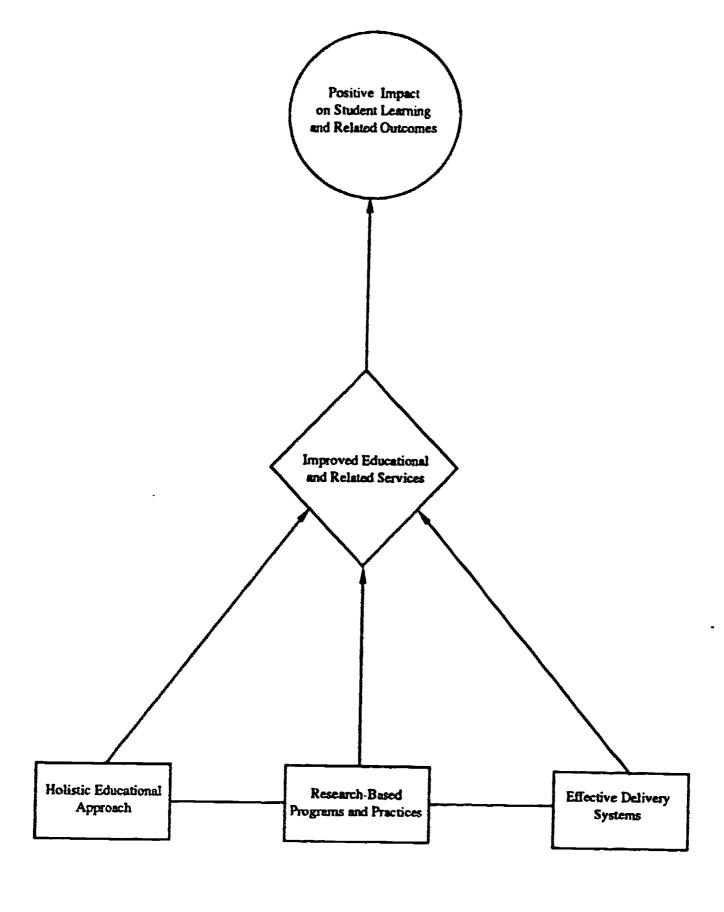
A Holistic Approach to Instruction and Education-Related Services

Unlike the predominant, "pull-out" practice in special education programs and other categorical programs such as Chapter 1, Follow Through model programs are implemented in general education classrooms where supplementary or specialized instruction and education-related services are provided for all students. As described in the preceding discussion of findings from studies of the long-term effects of Follow Through model programs, diagnosis and early intervention can reduce the need for special programs and services in later school years. Both the research base and practical experience increasingly point to the wisdom of coordinated programming and services (e.g., Heller, Holtzman, & Messick, 1982; Wang, Reynolds, & Walberg, 1986, 1987). The holistic approach is best represented by carefully sequenced and systematically monitored educational programs that are implemented in regular classrooms on a full-time



Figure 1.

A conceptual framework of the Follow Through approach for school improvement.





basis and that incorporate a continuum of learning alternatives to meet the needs of individual students, as well as a range of coordinated supplementary support services. Such programs can ensure early and continuing academic and social success for all students, including students from economically disadvantaged backgrounds.

According to findings from Bloom's (1985) large-scale study of talented young people with distinguished accomplishments in a variety of fields, high levels of functioning require favorable learning conditions that include a long intensive process of encouragement, nurturing, education, and training. Through a focus on instruction, staff development, parent involvement, and comprehensive services, the holistic approach that is applied in Follow Through schools and classrooms is aimed at creating such favorable learning conditions. The organization and culture of the entire school and the community are considered in the planning and delivery of instruction. Follow Through schools are distinguished by the type of collaborative planning on the part of all stakeholders that has been cited as conducive to effective instruction and student learning (Goodlad, 1983; Purkey & Smith, 1983; Wang, Haertel, & Walberg, 1990).

Research-Based Instructional Programs and Practices

The Appendix of this paper provides examples of the kinds of research-based features that have been included in Follow Through model programs over the years.

Although there is great diversity among these features, they are all based on extensive research and development. The Follow Through experience has shown that the linkage



of research and practice is highly desirable for its impact on student learning and service delivery. The Follow Through involvement of colleges, universities, and other research and development institutions has ensured that program implementation has been accompanied by ongoing documentation, evaluation, and refinement of program features as needed. Indeed, Follow Through may be a forerunner of the current emphasis on drawing from the wealth of extant research findings for the improvement of schooling (Wang, Haertel, & Walberg, 1990).

A recent, large-scale, observational study was designed to identify the relationship between specific, research-based program features and improved student learning. This study, which was conducted by Wang and Walberg (1987b), included four Follow Through model programs. Each of the programs incorporates a variety of features that are characteristic of the adaptive instruction approach to accommodating individual differences in learning (cf. Walberg & Wang, 1987; Wang & Lindvall, 1984). Among these program features are ongoing monitoring and evaluation of student learning, systematic record keeping by teachers, prescription of appropriate learning activities based on the diagnosed learning needs of individual students, the availability of a variety of alternate learning materials, students working together in groups, peer tutoring, and strategies for the development of self-management skills in students. One of the notable inferences that can be drawn from the Wang and Walberg (1987b) study is that no single instructional feature distinguishes effective programs from ineffective ones; rather, it is



the coordination of critical, research-based features in well-implemented programs that helps to influence overall effectiveness.

The model programs in the Wang and Walberg (1987b) study are examples of how the research and development efforts carried out in conjunction with the National Follow Through Program have contributed to, and sometimes challenged, the extant research base on instructionally effective practices. These four model programs add to the growing body of evidence that programs with adaptive instruction features can indeed yield process and achievement outcomes that are superior to the outcomes of traditional instruction. Findings from the Wang and Walberg (1987b) study include such positive outcomes as higher than expected levels of student achievement in math and reading, constructive student interactions, independent work, cooperative learning, and student exploration.

Effective Educational Delivery Systems

The effective introduction and maintenance of the Follow Through model programs in a variety of community and school settings throughout the past 20 years have required careful attention to a host of factors apart from the design and content of classroom instruction. These factors have included the following: (a) the willingness and openness of the school board and district administrators; (b) the extent to which the principal assumes a leadership role in program implementation; (c) the receptivity of teachers to the program's educational approach and requisite training activities; (d) the



awareness levels of parents and community members; (e) the availability of resources (e.g., time and finances for program start-up) to adequately support the program; and (f) the length of time that the program has been implemented (i.e., the longer a program is implemented, the greater the improvement in student outcomes [Gersten & Miller, 1987]).

The Follow Through model for school improvement (see Figure 1) incorporates an effective educational delivery system as a critical component for attending to the many contextual factors involved in the school implementation of innovative educational programs. Based on the experiences of Follow Through sponsors and local projects, three features of effective educational delivery systems have been identified: (a) the role of sponsorship, or the involvement of external agents in program implementation, monitoring, and refinement; (b) staff development; and (c) parent involvement.

Sponsorship. The partnership of model program sponsors and local projects, as reflected in the design of the National Follow Through Program, is a powerful device for promoting educational innovation. The collaboration of local schools/districts and an external agent (the program developer) provides fertile ground for the testing of new ideas. As Follow Through sponsors, program developers have been a strong stimulus for the development and application of knowledge. The involvement of local projects has been a built-in assurance that ideas are tested under real conditions and that the gap between theory and practice is effectively bridged. The interplay between sponsors and



local projects has fostered diverse and creative solutions to educational problems, and much has been learned on both sides.

The use of sponsorship on a large scale remains an innovative concept among current school improvement efforts. For many Follow Through model program sponsors, the process of learning to work under the ever-changing conditions of school systems has been a highly valuable experience — one that can benefit the developers of other educational programs. The value of sponsorship to local projects is evidenced by the positive impact of Follow Through model programs in a great number of communities nationwide and the sustained interest of schools/districts to continue the collaborative relationships with their sponsors.

Staff development. Recent research has shown that if the implementation of an educational innovation is to be successful, concrete assistance must be provided for teachers by persons who are knowledgeable about the day-to-day details of program design and operation (Cox, 1983; Huberman & Miles, 1984; Loucks & Zacchei, 1983; Wang, Vaughan, & Dytman, 1985). Several features of effective staff development have been identified, and many of these features are included in the training programs developed and carried out by Follow Through sponsors and local projects. These research-based features include the following: (a) the adaptation of training to the needs and interests of individual staff, (b) strong support from central and building administrators, (c) active participation by trainees in decisions regarding staff development goals and procedures, (d) systematic involvement of all personnel whose



work is either directly or indirectly affected, (e) built-in opportunities to test new skills and knowledge in safe environments and to receive constructive feedback on performance, and (f) demonstrations of the relationships between newly learned skills and improved student outcomes (McLaughlin & Mush, 1979; Mertens & Yarger, 1981; Olivero, 1982; Wang & Walberg, 1983). The consensus of research in this area is that trainees need frequent contact and continuous support in their efforts to solve both short-term and long-range problems (Cruickshank, Lorish, & Thompson, 1979; McNergney, 1980; Miller & Wolf, 1979; Perry, 1980; Wang & Gennari, 1983; Zigarmi, Amory, & Zigarmi, 1979).

The extensive experience of Follow Through sponsors in working with local projects also suggests that effective staff development is data-based; it systematically obtains and incorporates information on the degree of program implementation (Gersten & Miller, 1987; Vaughan, Wang, & Dytman, 1987). Follow Through model programs have included a variety of measures and instruments for documenting and assessing the extent to which high degrees of implementation of critical program features are attained. Implementation-related information has helped to identify the stages that teachers go through as they learn a new instructional program; the linkages among program design features, classroom processes, and student learning; and the requisite conditions and support systems for establishing and maintaining high degrees of program implementation in real classrooms and schools (Gersten & Miller, 1987).



In addition to highlighting the importance of implementation research, Follow Through sponsors have helped to identify other elements of effective staff development. For example, the Follow Through experience has shown that "instructional leadership teams" made up of school administrators, school-based master teachers or education specialists, and external consultants (program developers) are highly effective in providing training support for classroom teachers (Gersten & Miller, 1987). As members of their schools' instructional leadership teams, principals play a central role in encouraging and carrying out program implementation and staff development efforts (Gersten, Carnine, & Williams, 1982).

Responses to the recent survey of program adopters (Wang, 1987) indicate a great deal of receptivity toward the staff development approaches included in the various Follow Through model programs. Staff development activities seem to have fostered a strong sense of ownership and active participation in the planning and implementation of model programs at the non-Follow Through adopter sites. (The respondents to the Wang [1987] survey were personnel from schools/districts that had adopted components of Follow Through model programs but were not sponsored as Follow Through local projects.) Survey respondents perceived that Follow Through staff development approaches accommodated the particular needs of their schools, and they felt that the implementation support requirements of individual teachers were being met.

<u>Parent involvement</u>. Several recent U.S. studies and reports have noted that the level of parent involvement in the educational process is inadequate (e.g., Epstein, 1986;



U.S. Department of Education, 1986a). Yet it has been found that parents' participation in their children's learning can have a major impact on students' school achievement, social development, and subsequent adult knowledge (Leichter, 1974; Lightfoot, 1978; Marjoribanks, 1979; Walberg & Tsai, 1983). This impact can supersede the effects of socioeconomic status (U.S. Department of Education, 1986a).

In contrast to the overall lack of parent involvement in education, Follow Through has an impressive history of innovation and effectiveness in the design and implementation of parent involvement activities. Findings from national evaluations, as well as survey results and other empirical data that have been collected and analyzed by Follow Through model program sponsors, have shown extensive levels of parent involvement (Olmsted & Wetherby, 1987). Although the types of parent involvement activities utilized by the different model programs and local projects have varied widely, there has been a common emphasis on systematic implementation of the activities as well as coordination with the classroom instructional program. Follow Through parent involvement activities have included membership on Parent Advisory Committees; participation in classrooms as observers, volunteers, and paid employees; home visits and other contacts between school personnel and families for the purpose of sharing instructional materials/activities; and participation in education-related and community decision making.

As a result of their involvement, Follow Through parents have had a positive impact on their children's learning. Some increases in student achievement can be traced



to high levels of parent involvement. Close communication between home and school has been engendered, and parents themselves have undergone self-improvement, professional development, and increased community involvement as a result of their Follow Through experiences (Olmsted & Wetherby, 1987).

A four-year national study by the System Development Corporation (Burns, 1982) found that, compared to three other federally supported educational programs (Emergency School Aid Act, Title I, Title VII Bilingual), Follow Through had the greatest amount of parent involvement in all aspects of the management and operation of local projects. Follow Through parents have been especially active in lobbying for continued federal and local support for the various model programs. The willingness of parents to act as advocates of Follow Through is considered by many to be an important testament to the program's effectiveness over the past two decades (Haney, 1977; Smithberg, 1981).

Conclusion

Follow Through has been uniquely durable and effective as a national school improvement program. Based on its success and impact over the past two decades, Follow Through is clearly an important source of knowledge waiting to be tapped. The lessons to be learned from Follow Through are especially relevant in light of demographic trends that predict increasing numbers of students who are economically disadvantaged or otherwise considered academically at risk. These trends include growing enrollments of minority students (U.S. Bureau of the Census, 1982), high



proportions of whom are typically identified as requiring compensatory or special education services (cf. Brantlinger & Guskin, 1987); increases in the percentages of students below 18 years of age who live in poverty and, consequently, face the strong likelihood of being singled out for remedial or other special services (Child Trends, 1985; U.S. Bureau of the Census, 1985); and an epidemic rise in teen-age pregnancies, which often produce low-birthweight babies who tend to develop lifelong health problems and learning difficulties (Hughes, Johnson, Rosenbaum, Simons, & Butler, 1987).

Probably the most important message that Follow Through can deliver to educational researchers and program developers is that there is a critical need to forge a two-directional link between research and schooling practice. This link can be mutually beneficial when research findings are effectively communicated and collaboratively applied to schooling practice, and when the realities of the classroom help to shape research agendas and program development priorities.

Follow Through has also helped to identify ways of dealing with many of the thorny issues surrounding the evaluation of large-scale school improvement efforts. The national evaluations that were conducted throughout the early history of Follow Through (cf. Haney, 1977) taught some very important lessons. For example, they made all too salient the difficulty of accurately assessing the effects of innovations without likewise considering the diversity of contextual factors in real school and community settings that can operate against complete fidelity to program design features. The early evaluations of Follow Through also pointed to the need to develop instruments and procedures that



can adequately measure the impact of innovative educational approaches. As demonstrated and documented by the various Follow Through model programs, this impact is not restricted to student achievement. To be meaningful, information on program outcomes must include a broad range of variables that are expressly related to major program objectives, for example, the development of motivation and positive attitudes toward schooling, the fostering of self-competence and independence, the development of positive attitudes on the part of teachers and parents, and increased parent involvement in the educational process. Evaluations of program impact should also be able to trace relationships between specific outcomes and the degree of implementation of critical program design features. Finally, the national Follow Through evaluations raised the question of how to locate useful control groups when educational equity demands that promising approaches be extended to all eligible children in a community (Brickman & Ramp, 1987).

The lessons of Follow Through regarding effective instructional practices and related student outcomes correspond closely with findings reported in the extant literature on effective teaching and school effectiveness (e.g., Wittrock, 1986). However, the otherwise substantial knowledge base from research in general education is sorely lacking in information about "how to" achieve high degrees of implementation of educational innovations. Thus, Follow Through's message on "what works" may not be totally new, but its how-to lessons for implementing demonstrably effective practices in schools are unique and of critical importance.



A recent report entitled Schools That Work: Educating Disadvantaged Children (U.S. Department of Education, 1987) posits that "a good education can help children overcome even the most severe effects of poverty, and can provide our children with the traits of character and the shared knowledge and beliefs necessary for personal and economic success" (U.S. Department of Education, 1987, p. v). The report's formula for giving students a good start on the road out of poverty includes a challenging academic curriculum, instructional strategies tailored to the needs of children, a focus on early intervention, and the involvement of parents in the educational process. Follow Through's operation and effectiveness in the laboratory of this nation's schools has demonstrated how to make this formula work.



References

- Becker, W. C., & Gersten, R. (1982). A follow-up of Follow Through: The later effects of the Direct Instruction Model on children in fifth and sixth grades.

 American Educational Research Journal, 19, 75-92.
- Bloom, B. S. (Ed.). (1985). <u>Developing talent in young people</u>. New York: Ballantine.
- Brantlinger, E. A., & Guskin, S. L. (1987). Ethnocultural and social psychological effects on learning characteristics of handicapped children. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), <u>Handbook of special education</u>: Research and practice: Vol. 1. Learner characteristics and adaptive education (pp. 7-34). Oxford, England: Pergamon.
- Brickman, N. A., & Ramp, E. A. (1987). Follow Through: A brief history. In M. C. Wang & E. A. Ramp (Eds.), <u>The National Follow Through Program: Design, implementation, and effects</u> (Final Project Report, Vol. 1). Philadelphia, PA: Temple University Center for Research in Human Development and Education.
- Burns, G. (1982, November). <u>Executive summary: The study of parental involvement in four federal education programs</u> (Appendix to Hearing on Follow Through Amendments of 1983 [H.R. 2148], p. 153). Washington, DC: U.S. Government Printing Office.
- Child Trends, Inc. (1985). The school-age handicapped (NCES 85-400). Washington, DC: U.S. Government Printing Office
- Cloud, K., Rentfrow, R. K., & Hildebrandt, J. (1979). <u>Later school success of Follow Through graduates in Lakewood. New Jersey public schools</u>. Tucson: University of Arizona, Arizona Center for Educational Research and Development.
- Cloud, K., Rentfrow, R. K., Hildebrandt, J., Abrams, B., & DeCausey, B. (1980, April). High school success of Follow Through graduates and their siblings. Paper presented at the annual meeting of the American Educational Research Association, Boston, MA.
- Cox, P. (1983). Complementary roles in successful change. <u>Educational Leadership</u>, 41(3), 10-13.
- Cruickshank, D. R., Lorish, C., & Thompson, L. (1979). What we think we know about inservice education. Journal of Teacher Education, 30(1), 27-31.



- Epstein, J. L. (1986). Parents' reactions to teacher practices of parent involvement.

 The Elementary School Journal, 86, 277-294.
- Gersten, R., Carnine, D., & Keating, T. (1984, April). The lasting impact of the Direct Instruction Follow Through Program: Preliminary findings of a longitudinal study of 1500 students. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Gersten, R. M., Carnine, D. W., & Williams, P. B. (1982). Measuring implementation of a structured educational model in an urban school district: An observational approach. Educational Evaluation and Policy Analysis, 4(1), 67-79.
- Gersten, R., & Miller, B. (1987). The study of implementation: What we have learned from Follow Through research. In M. C. Wang & E. A. Ramp (Eds.), The National Follow Through Program: Design, implementation, and effects (Final Project Report, Vol. 1). Philadelphia, PA: Temple University Center for Research in Human Development and Education.
- Goodlad, J. I. (1983). A place called school. New York: McGraw-Hill.
- Haney, W. (1977). The Follow Through planned variation experiment: Vol. 5. A technical history of the national Follow Through evaluation (Report to the U.S. Office of Education, Office of Planning, Budgeting, and Evaluation). Cambridge, MA: The Huron Institute.
- Heller, K., Holtzman, W., & Messick, S. (Eds.). (1982). Placing children in special education: A strategy for equity. Washington, DC: National Academy of Sciences Press.
- Hodges, W., Branden, A., Feldman, R., Follins, J., Love, J., Sheehan, R., Lumbley, J., Osborn, J., Rentfrow, R., Houston, J., & Lee, C. (1980). Follow Through:

 Forces for change in the primary schools. Ypsilanti, MI: High/Scope Press.
- Huberman, A. M., & Miles, M. B. (1984). <u>Innovation up close: How school improvement works</u>. New York: Plenum.
- Hughes, D., Johnson, K., Rosenbaum, S., Simons, J., & Butler, E. (1987). The health of America's children: Maternal and child health data book. Washington, DC: Children's Defense Fund.
- Leichter, H. J. (1974). The family as educator. New York: Teachers College Press.



- Lightfoot, S. L. (1978). Worlds apart: Relationships between families and schools. New York: Basic.
- Loucks, S. F., & Zacchei, D. A. (1983). Applying our findings to today's innovations. Educational Leadership, 41(3), 28-31.
- Maraschiello, R. (1979). Longitudinal analysis of Follow Through participants. 1968-69 through 1977-78 (Report No. 7971). Philadelphia, PA: School District of Philadelphia, Office of Research and Evaluation. (ERIC Document Reproduction Service No. ED 181 033).
- Marjoribanks, K. (1979). Families and their learning environments: An empirical analysis. London: Routledge and Kegan Paul.
- McLaughlin, M. W., & Marsh, D. D. (1979). Staff development and school change. In A. Lieberman & L. Miller (Eds.), <u>Staff development: New demands.</u> new realities, new perspectives (pp. 69-94). New York: Teachers College Press.
- McNamara, T. (1978). Follow Through pupil achievement characteristics in Philadelphia Quasi-longitudinal data 1975-76 and 1976-77 (Appendices volume for Report No. 7870A). Philadelphia, PA: School District of Philadelphia, Office of Research and Evaluation.
- McNergney, R. F. (1980). Responding to teachers as individuals. <u>Theory Into Practice</u>, 19, 234-239.
- Mertens, S. K., & Yarger, S. J. (1981). <u>Teacher centers in action</u>. Syracuse, NY: Syracuse University, Syracuse Area Teacher Center.
- Miller, L., & Wolf, T. E. (1979). Staff development for school change: Theory and practice. In A. Lieb man & L. Miller (Eds.), Staff development: New demands, new realities, Lew perspectives (pp. 144-160). New York: Teachers College Press.
- Olivero, J. L. (1982). Principals and their inservice needs. <u>Educational Leadership</u>, 39(5), 340-344.
- Olmsted, P. P., & Szegda, M. J. (1987). Long-term effects of Follow Through participation. In M. C. Wang & E. A. Ramp (Eds.), The National Follow Through Program: Design, implementation, and effects (Final Project Report, Vol. 1). Philadelphia, PA: Temple University Center for Research in Human Development and Education.



- Olmsted, P. P., & Wetherby, M. J. (1987). Parent involvement in the Follow Through Program. In M. C. Wang & E. A. Ramp (Eds.), The National Follow Through Program: Design implementation, and effects (Final Project Report, Vol. 1). Philadelphia, PA: Temple University Center for Research in Human Development and Education.
- Perry, R. H. (1980). The organizational/environmental variables in staff development. Theory Into Practice, 19, 256-261.
- Purkey, S. C., & Smith, M. S. (1983). Effective schools: A review. <u>Elementary</u> School Journal, 83, 427-452.
- Ramp, E. A. (1986, February 20). [Written testimony]. Reauthorization of the Follow Through program (Hearing Report, Serial No. 99-103, pp. 1-25). Washington, DC: U.S. Government Printing Office.
- Rhine, W. R. (Ed.). (1981). Making schools more effective: New directions from Follow Through. New York: Academic Press.
- SCAN Executive Committee. (1983). Follow Through: Benefiting millions of children. (Available from SCAN, c/o High/Scope, 600 N. River St., Ypsilanti, MI 48198).
- Seitz, V., Apfel, N. H., & Efron, C. (1978). Long-term effects of early intervention: The New Haven Project. In B. Brown (Ed.), Found: Long-term gains from early intervention (pp. 79-110). Boulder, CO: Westview Press.
- Smithberg, L. (1981). Follow Through: Illusion and paradox in educational experimentation. Washington, DC: National Institute of Education.
- Stallings, J. A. (1975). Follow Through program classroom observation evaluation: Menlo Park, CA: Stanford Research Institute.
- Szegda, M. J. (1986). School success and the Parent Education Follow Through Program: A long-term follow-up (Doctoral dissertation, University of North Carolina, Chapel Hill, 1986). <u>Dissertation Abstracts International</u>, 47(5), 15998.
- U.S. Bureau of the Census. (1982). <u>Statistical abstract of the United States</u>. 1982-1983. Washington, DC: U.S. Government Printing Office.
- U.S. Bureau of the Census. (1985). <u>Statistical abstract of the United States</u>. 1986. Washington, DC: U.S. Government Printing Office.



- U.S. Department of Education. (1986a). What works: Research about teaching and learning. Washington, DC: Author.
- U.S. Department of Education. (1986b). <u>Effective compensatory education sourcebook:</u> Vol. 1. A review of effective educational practices. Washington, DC: Author.
- U.S. Department of Education. (1987). What works: Schools that work: Educating disadvantaged children. Washington, DC: Author.
- Vaughan, E. D., Wang, M. C., & Dytman, J. A. (1987). Implementing an innovative program: Staff development and teacher classroom performance. <u>Journal of Teacher Education</u>, 38, 40-47.
- Walberg, H. J., & Tsai, S. (1983). Matthew effects in education. <u>American Educational Research Journal</u>, 20(3), 359-373.
- Walberg, H. J., & Wang, M. C. (1987). Effective educational practices and provisions for individual differences. In M. C. Wang, M. C. Reynolds, & H. J. Walberg (Eds.), Handbook of special education: Research and practice: Vol. 1. Learner characteristics and adaptive education (pp. 113-128). Oxford, England: Pergamon.
- Wang, M. C. (1987). An analysis of the impact of the dissemination component of the National Follow Through Program. In M. C. Wang & E. A. Ramp (Eds.), The National Follow Through Program: Design, implementation, and effects (Final Project Report, Vol. 1). Philadelphia, PA: Temple University Center for Research in Human Development and Education.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1990). What influences learning? A content analysis of review literature. <u>Journal of Educational Research</u>, <u>84</u>(1), 30:43.
- Wang, M. C., & Lindvall, C. M. (1984). Individual differences and school learning environments. In E. W. Gordon (Ed.), <u>Review of research in education</u> (pp. 161-225). Washington, DC: American Educational Research Association.
- Wang, M. C., Reynolds, M. C., & Walberg, H. J. (1986). Rethinking special education. Educational Leadership, 44(1), 26-31.
- Wang, M. C., Reynolds, M. C., & Walberg, H. J. (1987). The necessary restructuring of special and regular education. <u>Exceptional Children</u>, 53(5), 391-398.



- Wang, M. C., & Walberg, H. J. (1983). Evaluating educational programs: An integrative, causal-modeling approach. <u>Educational Evaluation and Policy Analysis</u>, 5(3), 347-366.
- Wang, M. C., & Walberg, H. J. (1987a). The impact of Follow Through programs:

 A meta-analysis of Joint Dissemination Review Panel studies. In M. C. Wang & E. A. Ramp (Eds.), The National Follow Through Program: Design, implementation, and effects (Final Project Report, Vol. 1). Philadelphia, PA: Temple University Center for Research in Human Development and Education.
- Wang, M. C., & Walberg, H. J. (1987b). Exemplary implementation of four Follow Through model programs. In M. C. Wang & E. A. Ramp (Eds.), <u>The National Follow Through Program: Design, implementation, and effects</u> (Final Project Report, Vol. 1). Philadelphia, PA: Temple University Center for Research in Human Development and Education.
- Williams, T. (1983). <u>Tulare Follow Through Project and Resource Center</u> (Five-year study since national validation in 1977: 1978-1983). Tulare, CA: Tulare City School District.
- Wittrock, M. C. (Ed.). (1986). <u>Handbook of research on teaching</u> (3rd ed.). New York: MacMillan.
- Zigarmi, P., Amory, J., & Zigarmi, D. A. (1979). A model for an individualized staff development program. In A. Lieberman & L. Miller (Eds.), <u>Staff development:</u>
 New demands, new realities, new perspectives (pp. 161-173). New York: Teachers College Press.
- Zigler, E. F. (1981). Foreword. In W. R. Rhine (Ed.), <u>Making schools more effective</u>: New directions from Follow Through (pp. xiii-xvii). New York: Academic Press.



APPENDIX

OVERALL GOALS AND MAJOR DESIGN FEATURES/COMPONENTS OF WIDELY IMPLEMENTED FOLLOW THROUGH MODEL PROGRAMS



Appendix

Overall Goals and Major Design Features/Components of Widely Implemented Follow Through Model Programs*

Follow Through Model Program	Overali Goal	Major Design Features/Program Components
ADAPTIVE LEARNING ENVIRONMENTS MODEL Temple University Center for Research in Human Development and Education* Philadelphia, PA	To improve schools' capabilities for establishing and maintaining learning environments that maximize the chances of academic and social success for diverse student populations, in general education classrooms, through the provision of adaptive instruction.	 An instructional component that consists of an individualized basic skills curriculum, a diagnostic-prescriptive monitoring system, and a classroom instructional learning management system Program implementation monitoring system Data-Based Staff Development Program for ongoing individualized training An adaptive program delivery system School and classroom organizational supports, including multi-age grouping and instructional teaming
BANK STREET APPROACH FOR FOLLOW THROUGH Bank Street College	To develop the affective, intellectual, physical, and social competencies of each student through learning environments that stimulate exploration and respect for the child.	 A family involvement component for fostering communication between home and school as well as developing the "curriculum of the home" Organization of the classroom to maximize students' experiential opportunities as well as develop a sense of belonging and ownership
New York, NY		 Use of learning centers as structured work spaces that provide adult support for learning Integration of locally-based, thematic studies into the curriculum Entry assessment screening process for early identifica-



BANK STREET (con'L)

BEHAVIOR ANALYSIS MODEL

University of Kansas Lawrence, KS

To help students attain competence in basic academic subjects; to create feelings of satisfaction with the program among children, parents, and teachers; and to promote parent participation

To use a child's cultural network of experiences as a base for the teaching of new information, concepts, vocabulary, skills, and behaviors.

- Emphasis on small-group interaction for language development as well as the development of competencies in other curriculum areas such as mathematics and science
- Emphasis on the role of "teacher/scientist": teachers combine careful observation, information from developmental theory, and instruction to identify the most appropriate ways of helping each child to learn
- Systematic procedures for motivating students, including contingency contracts aimed at increasing students' rates of academic skills acquisition by providing positive consequences (teacher attention and praise) for appropriate classroom behavior
- Close monitoring of student performance and subsequent planning of instruction
- Individualized curriculum materials
- Small-group and individualized instruction
- Parent participation in classroom instruction
- Team teaching
- A comprehensive staff development program that incorporates a series of systematic "quality control" procedures
- Use of the "USISPU" teaching and learning sequence to introduce, reinforce, and expand instructional concepts (USISPU includes unstructured, structured, interim, and practice activities)
- A complete, culture-based curriculum in language development, science, mathematics, and social studies
- A balanced reading program
- · Learning centers that combine a variety of ethnic-based, teacher- and student-created, and commercially-produced materials

CULTURAL LINGUISTIC APPROACH

Northeastern Illinois University Chicago, IL

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CULTURAL LINGUISTIC APPROACH (con't.)

- Staff development that includes an assessment and feedback reporting system
- Cooperative planning between teachers and aides
- School Community Representatives

DIRECT INSTRUCTION MODEL

University of Oregon Eugene, OR

To teach more in less time by controlling the details of what happens in the instructional-learning process.

- DISTAR: specific curriculum materials and presentation sequences in reading, language, and arithmetic
- Small-group instruction combined with self-directed practice
- Use of criterion-referenced, continuous progress tests to monitor student progress on a regular basis
- The systematic use of positive consequences to strengthen students' motivation for learning
- Increased teacher-student interaction time through the training of aides to function fully as teachers
- Intensive staff development in curriculum materials and program implementation procedures

HAMPTON UNIVERSITY NONGRADED MODEL FOLLOW THROUGH PROGRAM

Hampton, VA

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To provide a flexible organizational plan for schools, whereby student progress is determined not by age, years in school, or performance in competition with other children, but by individual mastery of skills in an intellectually challenging environment.

- A continuous progress assessment system for group and individualized instruction
- Active attention to students' self-concept and to positive classroom dynamics between adults and children
- Use of learning centers as a means of individualizing instruction and developing a child-centered curriculum
- Strong emphasis on the language experience approach
- Community-relevant, ethnic and cultural activities
- A two-way, home-school learning link
- A sequential, cyclical training approach that is individualized to teachers' understanding and classroom implementation



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HIGH/SCOPE COGNITIVELY ORIENTED CURRICULUM MODEL

High/Scope Educational Research Foundation Ypsilanti, MI

To develop in children a broad range of skills, including the problem-solving, interpersonal, and communication skills that are essential for successful living in a rapidly changing society.

- An open-framework curriculum: Teachers help students to achieve developmentally sequenced learning goals while also encouraging students to set many of their own goals
- Classroom routines based on a plan-work-representevaluate sequence
- Prescription of materials and activities that are appropriate for students' levels of comprehension
- Encouragement of children to work with concrete materials in ways that lead to the formulation of problems and thoughtful problem solutions
- Large- and small-group learning activities
- Ongoing staff monitoring, evaluation, and training

INTERDEPENDENT LEARNING MODEL

Fordham University New York, NY To create independent learners who learn at their own pace with minimal direction from adults but also recognize the value of cooperation with teachers and peers.

- Extensive use of cooperative, small-group activities to underscore the interdependent nature of learning
- Use of programmed instruction in combination with Transaction Instructional Games
- The integrated Skills Method of reading instruction
- Teacher demonstration and role modeling
- The gradual transfer of control and responsibility for learning from teachers to students
- Peer teaching
- A coordinated set of systematic classroom management procedures



MATHEMAGENICS ACTIVITIES PROGRAM

University of Georgia
Athens, GA

To structure learning environments that stimulate cognitive growth and maximize the development of thinking processes in children.

- Encouragement of students to regulate their own learning
- A wide variety of learning experiences that use concrete, manipulative materials
- Planning of learning objectives to create an appropriate intellectual conflict for every child
- Use of multiple grouping strategies
- Extensive interaction between children and adults
- The MAP Implementation Assessment Instrument for program monitoring and staff development

PARENT EDUCATION FOLLOW THROUGH PROGRAM

University of North Carolina Chapel Hill, NC

To facilitate cognitive growth, affective development, and positive attitudes toward learning and school by enhancing the home as a learning environment and increasing parents' participation in instructional activities and decision making.

- Home Learning Activities that are related to classroom instruction and cooperatively developed by parents and school staff
- A series of 10 Desirable Teaching Behaviors for parents and teachers
- Extensive use of small-group instruction
- The integration of program with core curriculum of individual implementation sites
- Active parent participation through six major roles: teacher of one's own child, classroom volunteer, paid paraprofessional, decision maker, learner, and audience
- Comprehensive services (social, psychological, health) for children and families



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PARENT SUPPORTED DIAGNOSTIC MODEL

Georgia State University Atlanta, GA To broaden instructional-learning activities for teachers, parents, and children by making a better match between instruction and the child, increasing the time that children are engaged in learning activities, and strengthening the family.

- A classroom instruction component that includes strategies for goal setting by teachers, regular child assessment, and accurate record keeping
- A school-specific curriculum
- A home instruction curriculum in four interrelated domains of development: sensory-perceptual motor skills, intrapersonal, interpersonal, and cognitive-academic processes
- Parents in the role of paid Home Visitors
- A family services component that addresses the concerns of family stability, nutrition, and general health and welfare
- Built-in implementation monitoring and assessment

P.S. 33 MANHATTAN FOLLOW THROUGH PROGRAM

New York City Board of Education

To build upon each child's current stage of development by providing specific learning experiences based on his or her particular needs, interests, and abilities.

- Focus on the individual child, including ongoing pupil progress assessment and provision of individualized instruction
- Development of English language competence
- Flexible classroom grouping
- Use of learning centers
- Integrated curriculum areas
- A parent training program for developing instructional skills



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SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY FOLLOW THROUGH MODEL

Austin, TX

To provide non-English-speaking students and low-Englishproficiency students with the basic skills required to compete educationally throughout their school years.

- Comprehensive curriculum objectives and materials for bilingual (Spanish/English) instruction and English as a Second Language
- Emphasis on oral language skills in all curriculum areas
- Flexible classroom organization and use of learning centers
- A comprehensive staff development program that includes parents, teachers, and members of the school staff
- Extensive oral language, in-service training and practicum sessions for school staff

TUCSON EARLY EDUCATION MODEL

University of Arizona, Tucson

To provide learning environments where each child's unique experiences, skills, interests, and modes of learning are recognized, and where each child can develop a variety of intellectual, motivational, academic, social, and language skills.

- A child-centered, process-oriented curriculum aimed at introducing, reinforcing, and integrating basic academic/ learning skills
- Individualized instruction
- Emphasis on instruction in "learning-to-learn" skills
- Specialized learning centers for integrating activities across subject-matter areas
- A practicum-based delivery system for staff development
- A classroom environment and management system that provides major blocks of time for whole-group planning and discussion, small-group work or "committee time," and child-selection time



UNIVERSITY OF NORTH DAKOTA FOLLOW THROUGH PROGRAM

Grand Forks, ND

To help teachers create open, personalized, and decentralized classroom environments that can accommodate each child's unique rate of growth, learning style, needs, and interests.

- Curriculum focus on the integrative qualities of knowledge, skills, appreciation, and understanding
- The integration of instruction in communicationslanguage arts with instruction in other subject-matter areas
- An individualized, child-centered instruction
- Emphasis on the process by which subject matter is taught and the conditions under which children learn
- The availability of a variety of learning options and diverse materials
- A flexible scheduling and space arrangement, including the use of learning centers





Notes. At its peak, the National Follow Through Program included a total of 22 model programs. The 15 model programs listed here are those that participated in the project confeatures of the model programs has been taken from the reports for the Wang and Ramp project that were prepared by individual model program sponsors.

^{*} The institutional sponsor/developer of each model anogram is indicated.